

Incremental encoders

Shaft ø11 mm with EURO flange
Resolution 200...2048 pulses

ITD 40 B10 Y 23



ITD 40 B10 Y 23 with EURO flange

Features

- Encoder with shaft ø11 mm
- Resolution max. 2048 ppr
- Optical sensing
- Centering alignment ø85 mm, mounting screw hole circle ø100 mm
- Industrial standard with centering flange
- TTL or HTL output signals
- Terminal box axial, screw connection radial

Technical data - electrical ratings

Voltage supply	5 VDC ±5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤100 mA
Resolution (steps/turn)	200...2048
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤120 kHz
Output signals	A, B, N + inverted
Output circuit	TTL linedriver (short-circuit-proof) HTL push-pull (short-circuit-proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 55011

Technical data - mechanical design

Housing	ø82 mm
Shaft	ø11 mm
Flange	EURO flange B10
Protection DIN EN 60529	IP 65
Operating speed	≤8000 rpm
Starting torque	≤0.015 Nm
Admitted shaft load	≤60 N axial ≤100 N radial
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+70 °C -20...+100 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 100 g, 11 ms
Weight approx.	1150 g
Connection	Terminal box, 12-pin, M16x1.5 connection, radial

Part number

ITD 40 B10 Y 23			VR16		11	IP65
						Protection
						IP65 IP 65
						Flange / Shaft
					11	EURO flange B10 / ø11 mm
						Operating temperature
					S	-20...+70 °C
					E	-20...+100 °C
						Connection
					VR16	Terminal box, axial, 12-pin, M16x1.5 connection, radial
						Output signals
					BI	A, A inv, B, B inv
					NI	A, A inv, B, B inv, N, N inv
						Voltage supply / signals
					T	5 VDC / TTL level, linedriver
					H	8...30 VDC / HTL level, push pull
					R	8...30 VDC / TTL level, linedriver
						See part number (pulses)

Part number (pulses)

200	500	720	1024	2048
360	512	1000	2000	

Incremental encoders

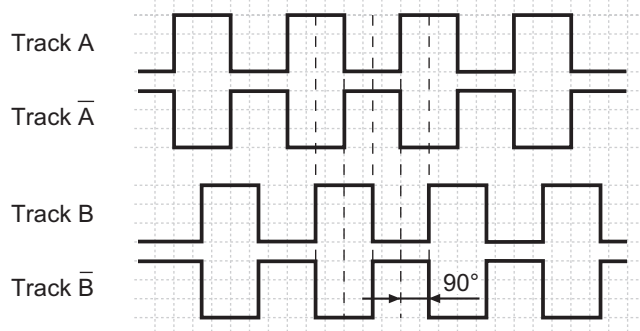
Shaft $\varnothing 11$ mm with EURO flange
Resolution 200...2048 pulses

ITD 40 B10 Y 23

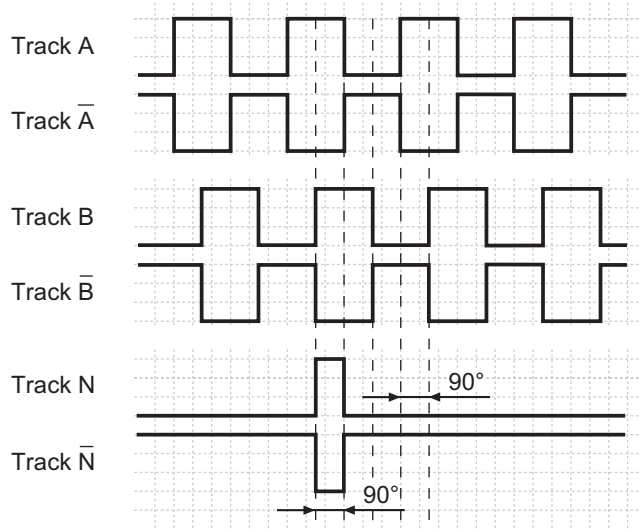
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



NI-Output signals



Terminal assignment

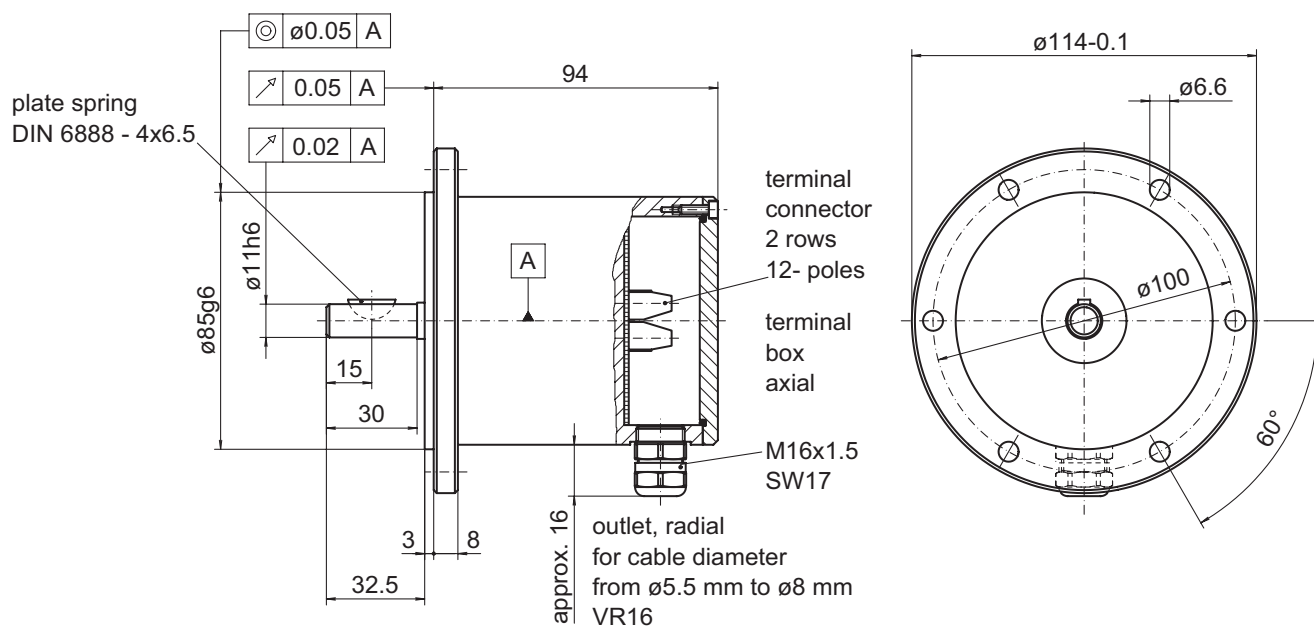
Terminal	Assignment
Pin 3	Track A
Pin 4	Track A inv.
Pin 5	Track B
Pin 6	Track B inv.
Pin 7	Track N
Pin 8	Track N inv.
Pin 2	UB
Pin 1	GND
Pin 10	UB-Sense
Pin 9	GND-Sense
Pin 11	NC
Pin 12	Shield/Housing

Trigger level

Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

Dimensions



025- 7 Y 5